

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

MAILED

JUL 23 1996

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HANS-JOSEF BUYSCH, KLAUS SZABLIKOWSKI
and JORN BRECKWOLDT

Appeal No. 94-0210
Application 07/746,397¹

ON BRIEF

Before KIMLIN, WEIFFENBACH and PAK, Administrative Patent Judges.
WEIFFENBACH, Administrative Patent Judge.

DECISION ON APPEAL

This appeal is from the examiner's final rejection of claims 1-7. Claim 8, the only other claim remaining in the application, has been withdrawn from consideration pursuant to a restriction requirement. We reverse.

¹ Application for patent filed August 16, 1991.

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The invention is directed to a process for the production of polysaccharides. Claim 1 is representative of the subject matter on appeal. A copy of the claim is appended to this decision.

In rejecting the claims, the examiner relies on the following references:

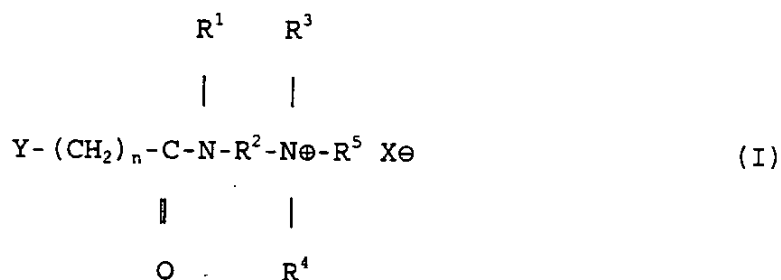
Pierce, Jr. et al. (Pierce)	3,567,360	Mar. 2, 1971
Solarek et al. (Solarek)	4,731,162	Mar. 15, 1988

In separate rejections, claims 1-7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Pierce and as being unpatentable over Solarek.

Opinion

We have carefully reviewed the application record which led to this appeal and the respective positions advanced by appellants and the examiner for patentability of the appealed claims. For the reasons set forth below, we must reverse the examiner's rejections.

The claimed process requires the reaction between a salt of a polysaccharide and a compound having the formula I:



wherein Y = Cl or Br; X = an anion; R¹, R², R³, R⁴ and R⁵ are organic substituents as defined in appellants' claim 1; and n = 1 to 6.

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Pierce teaches treating a cellulosic textile with a carbamoyl-alkylating agent having the following formula II:



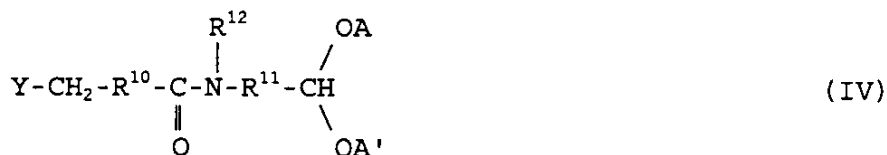
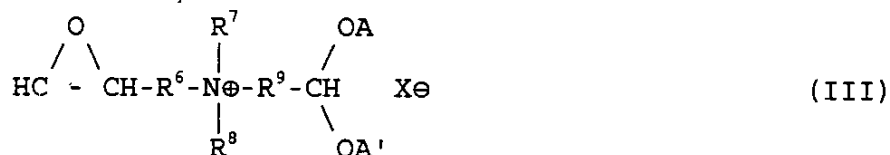
where Y = Cl, Br or I and n = 1 or 2. The carbamoylalkylating agent taught be Pierce is not the same as or even similar to formula I claimed by appellants.

On the record of this case, the examiner's reliance on *In re Durden*, 763 F.2d 1406, 226 USPQ 359 (Fed. Cir. 1985) is not well taken. Just because the carbamoylalkylating agent and saccharide reaction site are similar to those recited in appellants' claims, *Durden* does not render the claimed reaction *per se* obvious. The examiner must establish a *prima facie* case of obviousness on the facts of the record. *In re Ochiai*, 71 F.3d 1565, 1569, 37 USPQ2d 1127, 1131 (Fed. Cir. 1995), *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

We agree with appellants that applicants' starting material is not the same as in Pierce. The starting material used by Pierce has only one nitrogen which carries only a hydrogen and not a quaternary nitrogen as claimed herein. The examiner has not shown

or established that there is a reasonable expectation that the claimed starting materials will react analogously as the starting materials of Pierce. Nor has the examiner shown or established that the starting materials in Pierce can be modified to obtain the particular starting materials recited in appellants' claims or that Pierce suggests that the process disclosed in Pierce can be modified to obtain appellants' claimed polysaccharide product. See *In re Ochiai*, 71 F.3d at 1570, 37 USPQ2d at 1131. Accordingly, the examiner's rejection for obviousness under 35 U.S.C. § 103 over Pierce is reversed.

As for Solarek,² this reference discloses the formation of polysaccharide acetals from starting material having formulas III or IV:



² The quotation bridging pages 5 and 6 of appellants' appeal brief does not appear in Solarek's abstract. We could not find the quotation anywhere in the Solarek patent. It appears, however, that applicants' own abstract was inadvertently quoted.

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wherein R^6 , R^9 and R^{11} are $(CH_2)_m$ with $m = 1$ to 6 ; R^7 , R^8 and R^{12} being hydrogen or an alkyl, aryl, aralkyl or alkaryl group; R^{10} is $(CH)_n$ with $n \geq 0$; A and A' are independently a lower alkyl or together form 5-member cyclic acetal; and X is an anion. We agree with appellants that Solarek's starting material is different in structure from the claimed material. Solarek's starting material contains only one nitrogen and results in the formation of a polysaccharide having a hydroxy group as opposed to a carbonyl and does not include an OA or OA' as defined above. Solarek's starting materials and the polysaccharide products formed are not the same as or even similar to the starting materials and products recited in the claims on appeal. For the same reasons given in our reversal of the rejection of the claims over Pierce, we do not find the examiner's reliance on *Durden* as rendering the claimed invention obviousness is inappropriate. The examiner has not established a prima facie case of obviousness. Accordingly, we reverse the rejection under 35 U.S.C. § 103 over Solarek.

Conclusion


For the foregoing reasons, the decision of the examiner is reversed.


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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED

Edward C. Kimlin
EDWARD C. KIMLIN
Administrative Patent Judge


CAMERON WEIFFENBACH
Administrative Patent Judge


CHUNG K. PAK
Administrative Patent Judge

BOARD OF PATENT

APPEALS AND

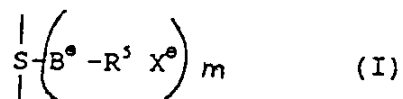
INTERFERENCES

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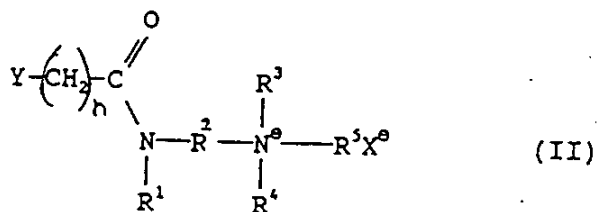
Sprung Horn Kramer & Woods
660 White Plains Road
4th Floor
Tarrytown, NY 10591-5144

CLAIM 1

1. A process for the production of polysaccharides corresponding to recurrent formula (I)

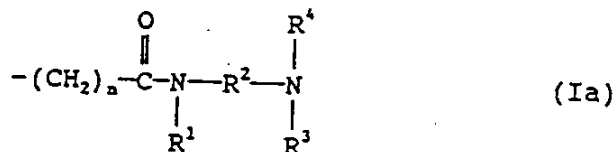


comprising reacting of polysaccharides with an alkyl halide corresponding to formula (II)



in which

- S is a monosaccharide unit and
B is a group of formula (Ia) attached to the monosaccharide unit S by an O atom



- n = an integer of 1 to 6,
R¹ = H, C₁₋₄ alkyl,
R² = an alkylene radical which may interrupted by an O or N atom,

APPENDIX

R^3, R^4 = an alkyl, aralkyl or aryl radical, an alkyl radical which may be interrupted by a heteroatom,

m = a number of 0.05 to 3.0,

R^5 = an alkyl radical optionally containing an olefinic double bond or an O atom or an aralkyl radical,

Y = Cl, Br,

X^o = an anion

or

R^3 and R^4 together with the common N atom form a ring optionally containing another heteroatom.